

AN ALASKAN CORYMORPHA-LIKE HYDROID.

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In a report on the hydroids of Alaska, published by the Academy of Natural Sciences in Philadelphia in 1876, the material of which was collected by parties under the charge of William H. Dall, and is now deposited in the United States National Museum, I created the family Rhizonemidæ, provisionally, and the genus *Rhizonema* for two somewhat mutilated specimens. Upon further examination, and with opportunity to consult a wider range of hydroid literature, I find that I was in error. The specimens belong either to the genus *Corymorpha* or to the genus *Lampra*, but they are not sufficiently well preserved to determine whether the gonophores are of the medusoid type characteristic of *Corymorpha*, or of the pseudomedusoid type of *Lampra*. The hydrocaulus is smallest just below the hydranth, enlarging gradually to near the base, where the basal filaments begin, and then tapers rapidly to a small rounded end; a small section of the stem immediately above the filaments is roughened with transverse wrinkles. The membrane which bears the filaments has something of a mammillated surface and is easily freed from the cone-shaped base, see figs. 1, 2. The hydranth is large; the proximal tentacles are in a single verticil: the distal tentacles are short, very numerous, matted together, and I can discover in them no regular arrangement. The proboscis is very large, being but slightly smaller at the distal than at the proximal end; the mouth is correspondingly large, the full width of the distal end of the proboscis. Immediately above the proximal tentacles are the peduncles of the gonophores; they are about thirty in number, and besides those forming the circle there are a few which originate a little higher up on the proboscis. The peduncles vary much in length in this imperfect, alcoholic specimen; they bear irregular clusters of processes, the gonophores, figs. 1, 3. These specimens were collected in Norton Sound, near St. Michael, Alaska, October 17, 1875, by L. M. Turner, of the U. S. Signal Service, who writes that "these specimens were of

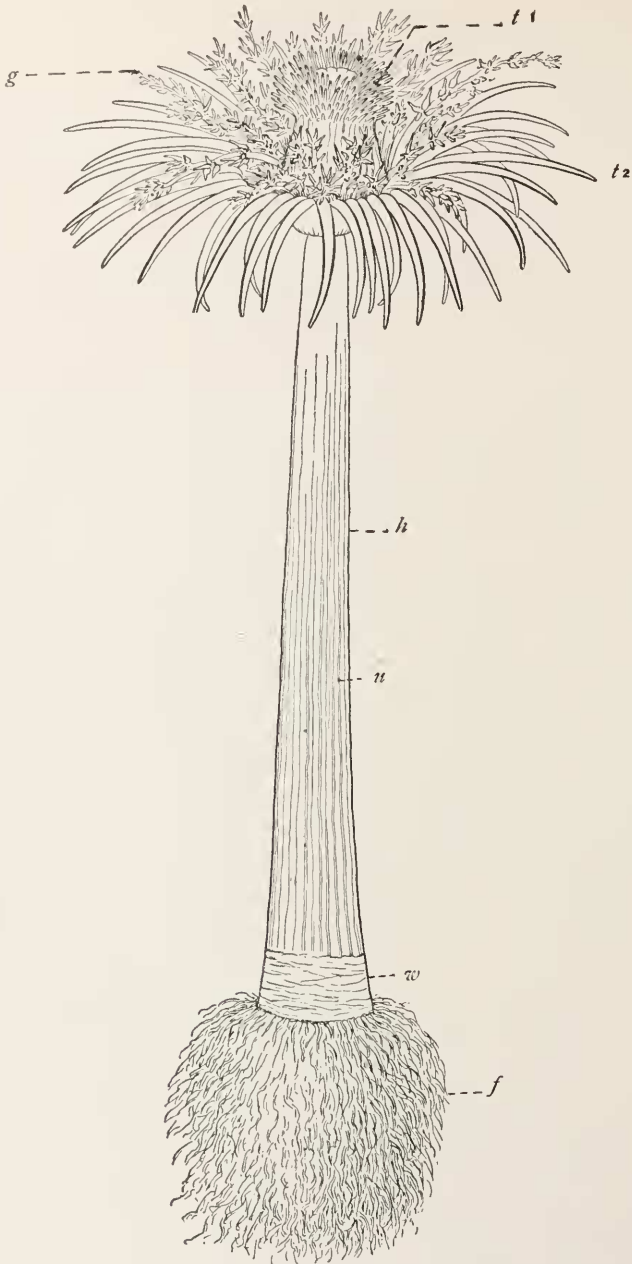


FIG. 1.—A RESTORATION OF THE BETTER SPECIMEN; ENLARGED TWO DIAMETERS.

f. Filaments.
g. Gonophores.
h. Stem.

*t*¹. Distal tentacles.
*t*². Proximal tentacles.
u. Canals in the cœnosare.
w. Wrinkled area.

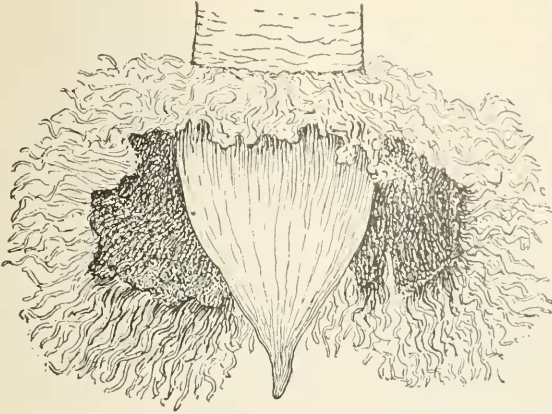


FIG. 2.—THE BASAL PART OF THE STEM, WITH THE FILAMENT MEMBRANE PARTLY TORN AND PULLED ASIDE.



FIG. 3.—A CAMERA OUTLINE OF ONE OF THE PEDUNCLES OF THE GONOPHORES.

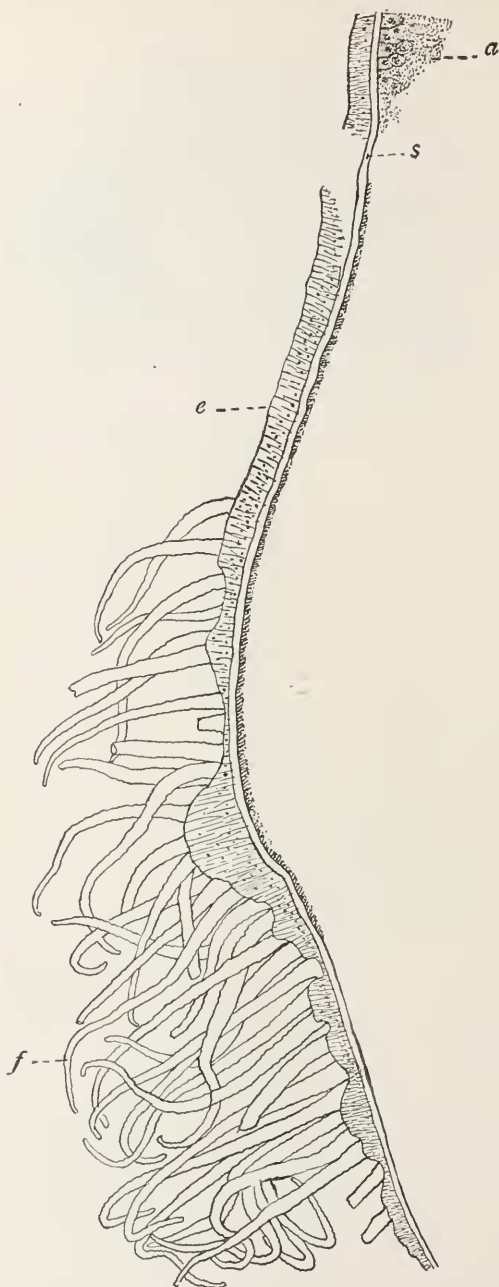


FIG. 1.—A LONGITUDINAL SECTION THROUGH THE STEM WALL NEAR ITS BASE. *a*, ENDODERM; *c*, ECTODERM; *f*, FILAMENT; *s*, SUPPORT-LAMELLA.

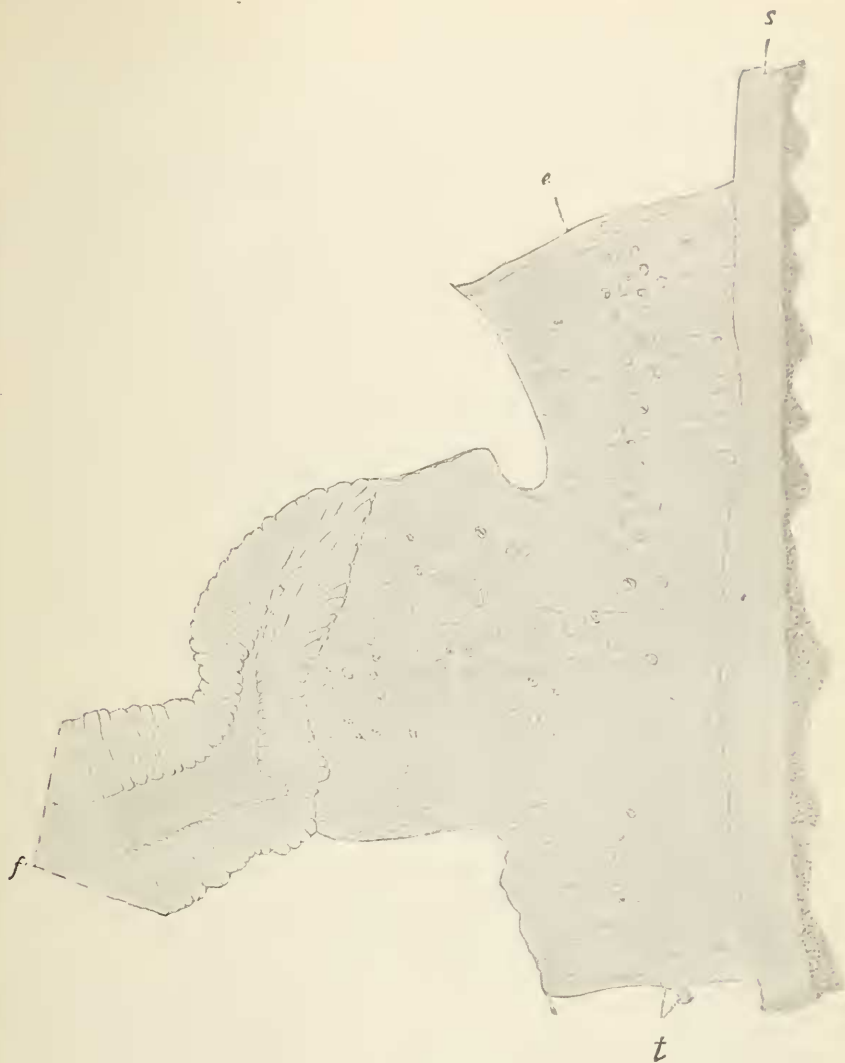


FIG. 5.—A PORTION OF FIG. 4 MORE HIGHLY MAGNIFIED; *t*, NEMATOCYSTS. FOR OTHER LETTERING SEE FIG. 4.

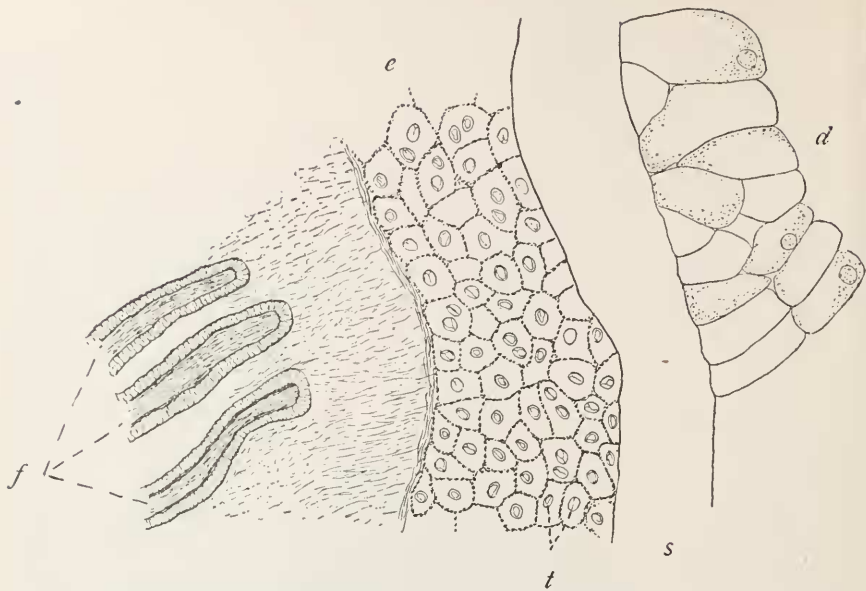


FIG. 6.—PART OF SECTION THROUGH THE BASAL PART OF A STEM OF *CORYMORPHA PENDULA* FROM WOODS HOLE; *d*, ENDODERM. FOR OTHER LETTERING SEE FIGS. 4, 5.

a deep coral red when found; they are not common." One of the specimens is complete, though it is somewhat mutilated, the tentacles and the sexual peduncles having suffered especially. The second specimen has no hydranth. An interesting structural feature is discovered in sections of the stem in the form of an unusually thick support-lamella, the Stützlammella of Reichert; it stains readily, and is found between the ectoderm and endoderm, well marked, in all parts of the stem. Sections through the basal part of the stem show many thread cells in the ectoderm, also the relation of the filaments to that layer. The filaments show no signs of cellular structure and are evidently developed from the ectoderm, fig. 5. There is but little left of the endoderm; a remnant of it is seen in fig. 4, *a*. Sections of the hydrocaulus of *Corymorpha pendula*, figs. 6, 7, show a similar thick support-lamella between the ectoderm and the endoderm. In the filament-bearing part there are many thread cells as in the Alaskan form, and farther up the hydrocaulus all three layers decrease in thickness. While this is probably a species of *Corymorpha*, I do not believe in rechristening it until we know definitely as to its genetic relations.

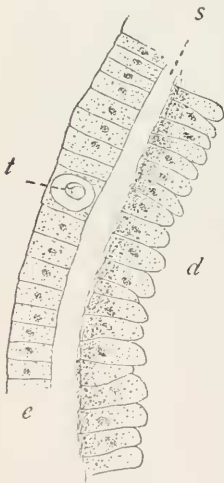


FIG. 7.—A PORTION OF THE SAME SECTION AS FIG. 6, BUT A LITTLE HIGHER UP ABOVE THE REGION OF THE BASAL FILAMENTS.